

Amendments to the Specification

Please add the following paragraph before the section beginning at page 1, line 3.

The present application is a continuation of U.S. Patent Application Serial No. 09/151,368, entitled "Tracking Semantic Objects In Vector Image Sequences," filed September 10, 1998, the disclosure of which is hereby incorporated by reference.

Please replace the paragraph at page 19, line 4 with the following rewritten paragraph:

Take a point p from S : $R = \{p\}$; ~~$S = S \cup \{p\}$~~ ; $S = S - \{p\}$;

Please replace the paragraph at page 19, line 10 with the following rewritten paragraph:

~~$S = S \cup \{q\}$~~ ; $S = S - \{q\}$;

Please replace the paragraph beginning at page 35, line 5 (i.e., the Abstract) with the following rewritten paragraph:

A semantic object tracking method tracks general semantic objects with multiple non-rigid motion, disconnected components and multiple colors throughout a vector image sequence. The method accurately tracks these general semantic objects by spatially segmenting image regions from a current frame and then classifying these regions as to which semantic object they originated from in the previous frame. To classify each region, the method ~~perform~~ performs a region based motion estimation between each spatially segmented region and the previous frame to ~~computed~~ compute the position of a predicted region in the previous frame. The method then classifies each region in the current frame as being part of a semantic object based on which

semantic object in the previous frame contains the most overlapping points of the predicted region. Using this method, each region in the current image is tracked to one semantic object from the previous frame, with no gaps or overlaps. The method propagates few or no errors because it projects regions into a frame where the semantic object boundaries are previously computed rather than trying to project and adjust a boundary in a frame where the object's boundary is unknown.